ABSTRACT OF THE DISCLOSURE

A method of determining defect detection
sensitivity data, comprises: taking image data from the
5 desired surface areas of each of semiconductor devices,
processing at least two of the image data through
arithmetic operations and comparing the processed image
data with a parameter of defect detection sensitivity
substituted by predetermined threshold data to obtain
10 information on defects in the desired areas at least in
one-to-one correspondence with any of the image data
arithmetically processed, repeating more than once the
step of varying the parameter of the defect detection
sensitivity to obtain the defect information, so as to
15 obtain more than one sets of combination data on a value
of the parameter of the defect detection sensitivity
correlated with the defect information, processing more
than one sets of the combination data to produce a
mathematical function expressing a relation of the
20 desired statistical data with the parameter of the
defect detection sensitivity, the mathematical function
being used to determine defect detection sensitivity
data, the defect detection sensitivity data being used
in obtaining the information on the defects in the
25 desired surface areas of the semiconductor devices under
defect inspection, and the defect detection sensitivity
data defining an existence range of the defect
information in the image data which are taken from the
desired surface areas of each semiconductor device and
30 which are arithmetically processed in the previous step.